

August 19, 2013

LABORATORY NUMBER: CUSTOMER AUTHORIZATION: DATE SUBMITTED: REPORT TO: 5004.9237 Credit Card

August 16, 2013

Pacific Gas & Electric Co. Attn: Redacted 375 North Wiget Lane, Ste. 250 Walnut Creek, CA 94598

## SUBJECT:

One pipe section was submitted for tensile testing and metallurgical evaluation. The sample was identified as Pipe Segment from L147, 20" Diameter.

## TRANSVERSE TENSILE TEST (ASTM A370-10)

	Weld Metal	Parent Metal
Dimensions of Specimen (in.)		
Width	1.508	1.508
Thickness	0.257	0.254
Area (sq. in.)	0.388	0.383
Tensile Strength (psi)	58700	61800
Yield Strength (psi)*	42900	39300
Elongation in 2.0 Gage (%)	11	41
Fracture Location	Weld	-
Fracture Characteristic	Ductile**	-
*Upper Yield Strength (formerly Y.P.)	0.5% E.U.L; **Indication observed	d

## MACROTECH EXAMINATION

A cross section through the weld was polished and etched. Photographs of the weld are attached. The weld appears to be an A.O. Smith type weld.

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## Lab. No. 5004.9237

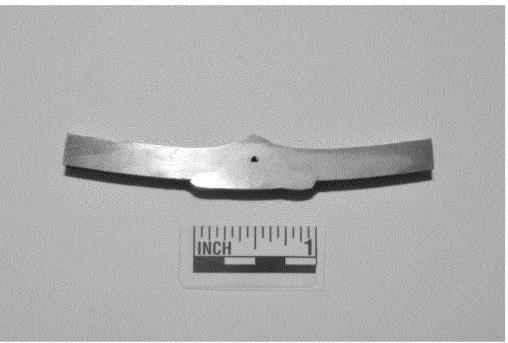


Photo #1

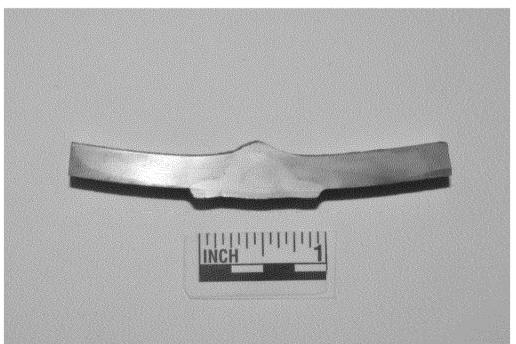


Photo #2, opposite side of Photo #1



Lab. No. 5004.9237

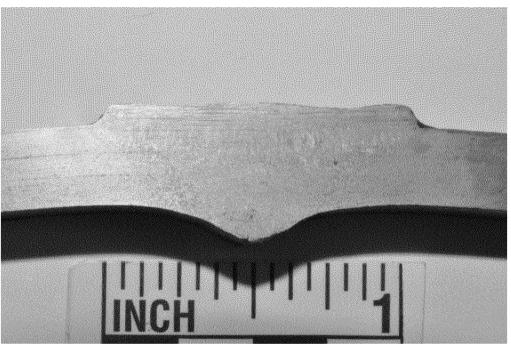


Photo #3

This testing was completed on August 19, 2013 and performed in accordance with the customer's authorization.

Submitted by:

Edward C. 2 vena

Edward A. Foreman Quality Manager

gj